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REMARKS

Claims 16, 25, 42, and 47-51 have been amended, in some cases, to correct clerical type errors and in other cases to overcome the allegations in the Restriction Requirement that the method and apparatus claims are directed to different inventions. As a result of the amendments to independent apparatus claims 16, 25 and 42, applicants traverse the Restriction Requirement between the method and apparatus claims.

The Office Action alleges the apparatus as claimed can be used to practice another and materially different processes from the processes set forth in the method claims. The Office Action states that the apparatus can be used for plasma cleaning of a vacuum chamber or a non-plasma gas processing of a workpiece. However, each of the independent apparatus claims now specifically indicates the workpiece is processed or adapted to be processed while the plasma is excited.

Claim 15 requires the several frequencies to simultaneously cause several different phenomena to occur in the plasma and that the phenomena affect plasma ion energy, plasma ion density and plasma chemistry of the plasma as incident on the workpiece. Claim 16 requires the chamber to be arranged for carrying a workpiece while the plasma excitation fields are coupled to the plasma. Claims 25 and 42 require the chamber to be arranged for carrying the workpiece while the plasma exciting fields are supplied to a region of the chamber arranged for carrying a workpiece.

Based on the foregoing, the independent apparatus claims are not separate and distinct from independent method Claim 1 that now requires a workpiece to be processed with a plasma, wherein the plasma is excited with electric energy at several frequencies such that the excitation of the plasma by the several frequency simultaneously causes several different phenomena to occur in the plasma, wherein the frequencies affect the density of the plasma, energy of ions of the plasma and the chemistry of the plasma that is applied to the workpiece.

To satisfy the requirement of the Office Action that the method or apparatus claims be elected, applicants hereby elect to prosecute apparatus claims 15-51, in the event that

the PTO finally decides the method and apparatus claims are directed to inventions that are separate and distinct from each other.

The Office Action states that the claims are also directed to several patentably distinct species. In response to this election requirement, applicants elect to prosecute species D, i.e., the embodiment wherein the plasma excitation source arrangement is arranged for applying several of the frequencies to a first electrode while a second electrode is connected to a reference potential. Applicants note that the PTO will consider all species upon allowance of a generic claim.


The apparatus claims that are generic to the elected species or read specifically on the elected species are claims 15-18, 20-25, 27-35 and 37-41. The method claims that are generic or that read on the elected species are claims 1, 2, 4, 5, 7-12, 14 and new claims 62 and 63, that are added to provide applicants with the protection to which they are deemed entitled. Claims 62 and 63 are specific to the elected embodiment.

In view of the foregoing amendments and remarks, consideration of all claims is believed in order.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

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